REMARKS

Claims 1 and 3-21 are pending in the present application. By this amendment, claim 10 has been amended as to matters of form. No new subject matter has been introduced. Reconsideration of the rejections of claims 1, 3-21 is respectfully requested of the Examiner.

In the Office Action, the Examiner indicated that claims 10-21 contained allowable subject matter, but objected to claims 10-21 under 35 U.S.C. §112, second paragraph. Applicants appreciate the suggestions of the Examiner regarding independent claim 10. As amended, claim 10 clarifies the objected claim features therein. Accordingly, Applicants respectfully request that the Examiner's objections to claims 10-21 be withdrawn and the claims be allowed.

In the Office Action, claims 1, 3, 4, and 7-9 were rejected under 35 U.S.C. § 102 (e) as allegedly being anticipated by U.S. Patent No. 6,771,705 ("***Kenney***"). Applicants respectfully traverse the Examiner's rejections in view of the remarks set forth below.

As set forth in M.E.P. §2131, a claim is anticipated under 35 U.S.C. §102(e) only if each and every element as set forth is found, either expressly or inherently described, in a single prior art reference. As discussed more fully below, ***Kenney*** fails to show or teach the features recited in the independent claim 1. For at least the aforementioned reasons, Applicants respectfully submit that the present invention is not anticipated by ***Kenney*** and request the Examiner to withdraw the §102 rejection of the pending claims 1, 3, 4, and 7-9.

Kenney describes a technique for turbo coding in which different subsets of parity data are transmitted via each antenna/channel for error recovery of the transmissions. Since ***Kenney*** exchanges parity data subsets, it does not and cannot form separately two error control coded streams as is recited in independent claim 1. See ***Kenney***, Figure 2 and Step No. 308 of Figure 3

and the description of the Figures 2 and 3. Based on the above-indicated legal standard, it is respectfully submitted that the ***Kenney*** reference fails to anticipate claim 1. Thus, claim 1 and claims dependent therefrom are in condition for allowance which is respectfully requested of the Examiner.

Kenney does not teach forming two error control coded streams. *See* ***Kenney***, column 6, lines 25 - 45. It teaches using a first and a second encoder 201, 204 where each encoder generates parity information for the interleaved systemic data instead of two or more bit streams being separately formed and error coded (*e.g.*, per-stream encoded) to allow each to be transmitted and/or received by at least one antenna of a multiple antenna system. See ***Kenney***, Col. 4, lines 17-35. A first multiplexer 206 concatenates the interleaved and non-interleaved systematic data for transmission over one channel via antenna 113. Likewise, the antenna 114 transmits the multiplexed data from a second multiplexer 207. That is, use of encoders and multiplexers is not described by ***Kenney*** in a manner such that each of the at least two separately formed, error coded streams may be independently transmitted. ***Kenney*** does not, however, simultaneously create multiple error control coded streams of packet(s) or sub-packet(s). Kenney is also silent about selectively and independently using different re-transmitting techniques across multiple HARQ formatted streams of bits, multiple error control coded streams of packet(s) or sub-packet(s) that may be simultaneously created and transmitted, for example, as described in the Applicants' Specification, on page 4, line 18 – page 5, line 3. Absent any specific teaching and/or suggestion of the features set forth in claim 1, mere use of a retransmission protocol described by ***Kenney*** cannot increase the throughput in a wireless communication system that may employ a multiple antenna system. Thus, clearly, the Examiner cannot rely on ***Kenney*** to teach all the claimed features set forth in claim 1.

Claim 1, among other things, calls for a method of processing a block of information comprising forming separately at least two error control coded streams from the block of information. ***Kenney,*** on the other hand, generates two copies of the same parity data for the systematic data and the interleaved systematic data to create different parity data subsets that may be utilized in independent combinations across two channels for transmissions via different antenna processors. The generated parity information for the systematic data is then passed to demultiplexer and puncture unit 202 to be duplicated. See ***Kenney,*** col. 4, lines 21-23. The generated parity information for the interleaved systematic data is passed to a different demultiplexer and puncture unit 205 to be duplicated. See ***Kenney,*** col. 4, lines 36-38.

In the Office Action at page 4, the Examiner notes that Applicants' position regarding the ***Kenney*** reference is apparently that the two separate error control code encoders (Encoder 1, Encoder 2) that separately form separate error control code streams (Parity data subset 1, Parity data subset 4) are not separate error control code encoders because each encoder "encodes the same information bit sequence into a plurality of encoded bit sequences differently. The Examiner alleges that the Applicants are presumably alluding to the presence of additional error control code streams (Parity data subset 3, Parity data subset 4). According to the Examiner, the claims do not appear to definitely exclude additional error control code encoders or additional error control code streams. The Applicants disagree and note that claim 1 expressly recites that two separately formed, error control coded streams are independently transmitted by an associated antenna. For at least this reason, the Examiner is respectfully requested to reconsider the § 102 rejection of claim 1.

The Examiner further alleges that ***Kenney*** discloses a wireless data transmission arrangement including transmitter circuitry (FIG. 2) comprising a pair of turbo code component

encoders (Encoder 1, Encoder 2) providing "a separate error control code encoder for each stream" for "forming separately a least two error control coded streams from a block of information." The Examiner further states that separate antennas (113, 114) are used by ***Kenney's*** transmitter to transmit the respective "error control coded streams." The Examiner concludes that ***Kenney's*** data transmission arrangement further uses a hybrid ARQ protocol with incremental redundancy (col. 7, lines 26+), and therefore transmits this data in response to a "confirmation message" or the ARQ protocol.

The Applicants disagree respectfully. By creating different parity data subsets that may be utilized in independent combinations for successful reception of the systematic data, ***Kenney*** combines, with the systematic data, only a selected subset of parity data generated from the non-interleaved systematic data by encoder 201 and a selected subset of parity data generated from the interleaved systematic data by encoder 204 for transmission on a given channel within the transmitter diversity wireless communications system. In the embodiment shown in FIG. 2, parity data subset 1 (generated from the non-interleaved systematic data) and parity data subset 3 (generated from the interleaved systematic data) are concatenated, together with the non-interleaved systematic data, by multiplexer 206 for transmission over one channel (i.e., via antenna 113). See ***Kenney,*** col. 4, lines 45-47 and lines 63-68. Accordingly, the ***Kenney*** reference fails to disclose or even suggest all of the limitations of claim 1 and its dependent claims. Thus, claims 1 and 3-9 are in condition for allowance.

In view of the foregoing, Applicants respectfully submit that all pending claims are in condition for allowance. The Examiner is invited to contact the undersigned at (713) 934-4089 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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